

M. Tanaka et al.  
U.S. Serial No. 09/841,666  
Page 2 of 8

**Amendments to the claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of claims:**

Claims 1-5 (canceled)

Claim 6 (currently amended): An apparatus for producing an optical film, comprising:

a cylindrical die roller having a matrix formed on a surface thereof in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another and being defined ~~with ridge lines~~ such that each of the square bottom faces has at least one diagonal inclined at a predetermined angle of between about 10 degrees and 80-40 degrees with respect to a ~~circumferential direction of the die roller, the circumferential direction being parallel to a rotation axis of the die roller,~~

~~wherein the ridge lines of adjacent concave portions or convex portions form a straight line, and~~

wherein the die roller is rotated on a film to transfer a rough face of the matrix having the convex or concave portions which are linearly continuous, to a surface of the film.

Claim 7 (currently amended): An apparatus for producing an optical film, comprising:

a cylindrical die roller having a matrix formed on a surface thereof in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another, and being defined ~~with ridge lines~~ such that each of the square bottom faces has at least one diagonal inclined at a predetermined angle of between about 10 degrees and 80-40 degrees with respect to a ~~circumferential direction of the cylindrical die roller, the circumferential direction being parallel to a rotation axis of the cylindrical die roller,~~ and ~~the ridge lines of adjacent concave portions or convex portions form a straight line; and~~

M. Tanaka et al.  
U.S. Serial No. 09/841,666  
Page 3 of 8

means for transferring a rough face of a die film to a surface of another film, the rough face being produced by rotating the die roller on the die film and having convex portions or concave portions that are linearly continuous.

Claim 8 (currently amended): A method of producing an optical film, comprising the step of:  
rotating on a film a cylindrical die roller having a matrix formed on a surface in which a plurality of rows of concave portions or convex portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous, are regularly arranged so as to be adjacently formed in parallel with one another and being defined ~~with ridge lines such that each of the square bottom faces has at least one diagonal~~ inclined at a predetermined angle of between about 10 degrees and ~~80-40~~ degrees with respect to a ~~circumferential~~ direction of the die roller, the ~~circumferential~~ direction being parallel to a rotation axis of the die roller, to transfer the plurality of rows of concave portions or convex portions to a surface of the film;  
~~wherein the ridge lines of adjacent concave portions or convex portions form a straight line.~~

Claim 9 (currently amended): A method of producing an optical film, the method comprising the steps of:

rotating on a film a cylindrical die roller having a matrix in which the plurality of rows of convex portions or concave portions that are configured by quadrangular pyramids having square bottom faces and linearly continuous are regularly arranged so as to be adjacently formed in parallel with one another and being defined ~~with ridge lines such that each of the square bottom faces has at least one diagonal~~ inclined at a predetermined angle of between about 10 degrees and ~~80-40~~ degrees with respect to a ~~circumferential~~ direction of the cylindrical die roller, the ~~circumferential~~ direction being parallel to a rotation axis of the cylindrical die roller, to transfer the plurality of rows of convex portions or concave portions to the film to prepare a die film having a rough face having the plurality of rows of convex portions or concave portions;  
~~wherein the ridge lines of adjacent concave portions or convex portions form a straight line;~~ and  
transferring the rough face of the die film to a surface of another film.

M. Tanaka et al.  
U.S. Serial No. 09/841,666  
Page 4 of 8

Claims 10-16 (canceled)

Claim 17 (new): An apparatus for producing an optical film, comprising:

a cylindrical die roller having concave portions or convex portions formed on a surface thereof, the die roller being rotated on a film to transfer the concave portions or convex portions to a surface of the film,

wherein the concave portions or convex portions formed on the surface of the die roller are continuously arranged so as to form linear rows on one virtual plane obtained by developing the surface of the die roller, the linear rows being adjacently arranged in parallel with one another and extending in a direction which forms a predetermined angle with respect to a side of the one virtual plane corresponding to a periphery of the cylindrical die roller.

Claim 18 (new): The apparatus of claim 17, wherein the predetermined angle is between about 10 degrees and 80 degrees.

Claim 19 (new): The apparatus of claim 17, wherein the predetermined angle is between about 10 degrees and 40 degrees.

Claim 20 (new): The apparatus of claim 17, wherein the concave portions or convex portions formed on the surface of the die roller are configured as a pyramid.

Claim 21 (new): The apparatus of claim 17, wherein the concave portions or convex portions formed on the surface of the die roller are configured as a regular pyramid.

Claim 22 (new): The apparatus of claim 17, wherein the concave portions or convex portions formed on the surface of the die roller are configured as a hemisphere.

Claim 23 (new): The apparatus of claim 17, further comprising means for transferring the film to which the concave portions or convex portions are transferred to a surface of another film.

M. Tanaka et al.  
U.S. Serial No. 09/841,666  
Page 5 of 8

**Claim 24 (new):** A die roller for producing an optical film, comprising:

a cylindrical body having concave portions or convex portions formed on a surface thereof, the concave portions or convex portions being transferred to a surface of a film, wherein the concave portions or convex portions formed on the surface of the cylindrical body are continuously arranged so as to form linear rows on one virtual plane obtained by developing the surface of the cylindrical body, the linear rows being adjacently arranged in parallel with one another and extending in a direction which forms a predetermined angle with respect to a side of the one virtual plane corresponding to a periphery of the cylindrical body.

**Claim 25 (new):** The die roller of claim 24, wherein the predetermined angle is between about 10 degrees and 80 degrees.

**Claim 26 (new):** The die roller of claim 24, wherein the predetermined angle is between about 10 degrees and 40 degrees.

**Claim 27 (new):** The die roller of claim 24, wherein the concave portions or convex portions formed on the surface of the cylindrical body are configured as a pyramid.

**Claim 28 (new):** The die roller of claim 24, wherein the concave portions or convex portions formed on the surface of the cylindrical body are configured as a regular pyramid.

**Claim 29 (new):** The die roller of claim 24, wherein the concave portions or convex portions formed on the surface of the cylindrical body are configured as a hemisphere.